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RTD TODAY

Resources and Technology Division
Economic Research Service
U.S. Department of Agriculture, Washington, DC

A newsletter for employees
and colleagues of RTD

FOURTH QUARTER
1993

FROM THE DIRECTOR'S OFFICE

The previous issue of RTD Today discussed the ambitious plans we have for Fiscal Year 1994. While I prefer to look ahead, I also know the merits of taking stock, which is the custom at this time of year.

I am very pleased with our accomplishments in 1993, especially given the uncertainty with which we were forced to operate. The quality and quantity of our analyses continue to be the best measure of what we have accomplished. RTD essentially tripled the number of USDA monographs over last year. Most importantly, we contributed five monographs focusing on water quality and agriculture as part of the USDA Water Quality Program. The first Education, Financial and Technical Assistance evaluation report, Agricultural Water Quality Improvements, was completed for select hydrologic unit areas and demonstration projects as part of the USDA Water Quality Program. Also, five USDA monographs on pesticides and food safety were published as part of the USDA Pesticide Data Program research efforts. Our expertise in the pesticide area is currently being tapped in drafting and evaluating new pesticide legislation. I am also extremely pleased with the quality of many of our refereed articles, books, and book chapters, and I believe that they complement and enhance the content of our policy research and analysis program.

As part of our revised publication policy, a new current information product, Agricultural Resources and Environmental Indicators, will be introduced to replace the Division's Situation and Outlook reports. This report will respond to a broader clientele and showcase ERS data previously published in outside sources. The new product expands on the 1993 Agricultural Resources: Cropland, Water, and Conservation Situation and Outlook report; over 3000 copies of the report were distributed. The report was innovative in style, format, and content. The report coordinators as well as contributors are to be congratulated. RTD Updates, which were initiated in 1992, became firmly established as a twice monthly effort by the end of 1993. RTD Updates draw on current data from the chemical use, water quality, and land surveys developed by the Division.

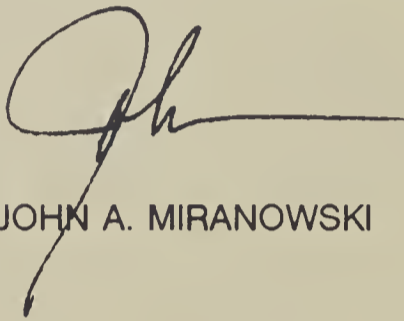
RTD authors also contributed to a number of ERS publications. Excellent articles appeared in Agricultural Outlook, Food Review, and the ERS Issues for the 1990's series. The new ERS Information, which was established to replace Farmline, regularly featured RTD material. We have also produced several ERS/NASS Standard Data Products.

Based on our strong research and analytical foundation, RTD continued to make important contributions to staff analysis on conservation compliance, CRP bidding reform, Clean Water Act reauthorization, pesticide policy decisions, trade and the environment, greenhouse gas reductions, endangered species, and OECD and FAO agriculture and environment issues.

We hosted two successful workshops involving Congressional staff, environmental interest group, university, and ERS representatives on environmental accounting and on future "green" policies that address environmental problems related to agricultural activities. We are following through on these topics and have research reports planned for 1994 release.

RTD continues to promote equal opportunities in the Division through a program that stresses an improved workplace environment. During 1993, RTD made significant progress in promoting and hiring women and minorities. In addition, RTD continued team building for managers and staff. A mentoring and non-monetary awards workshop focused on means of retaining a diverse staff in an era of downsizing. Finally, RTD expanded support for the National Consortium for Educational Access Fellowships to enhance the pool of minority Ph.D.'s in economics and related fields, maintained a strong summer internship program with an emphasis on women and minorities, and emphasized "Coops for Action" agreements with minority and women cooperators and graduate assistants. I am proud of our accomplishments and pledge continuing effort on this important aspect of our program.

Best wishes to all for the holidays and a most happy and rewarding new year.

A handwritten signature in black ink, appearing to read 'John A. Miranowski', with a long horizontal stroke extending to the right.

JOHN A. MIRANOWSKI

PROGRAM HIGHLIGHTS

Global Change Program Update

Many environmental issues affecting the U.S. agricultural sector are global in nature. RTD's research program considers a number of these issues. Climate change is one example. RTD researchers have examined the economic impacts of climate change on U.S. and world agriculture. The initial focus of the research was to argue that the economic impacts of climate change should be evaluated using global economic models instead of regional or national models. The global nature of the environmental problem as well as the increasing interdependence of the world economy indicate the need for a global assessment.

Current research is extending that work in several directions. First, a geographic information system and an applied global general equilibrium model with land and water endowments has been developed with the assistance of Purdue University. This new model will permit us to determine how natural comparative advantage will be affected by climate change. Previous research has modeled climate change by shocking yields of selected commodities. The new research specifically identifies land and resource interactions with production. It also can consider interactions between agriculture and other economic sectors.

A broader definition of agriculture also has been employed. Most studies have focused on selected primary commodities, such as wheat, rice or livestock; they have failed to consider processed food. When the effects on the food processing sector are considered, the economic impacts of climate change are adverse for consumers. This broader definition of agriculture becomes more important in view of the long-time frame for the predicted scientific effects of climate change. As countries' economies develop over time, a larger share of households' budgets is devoted to processed food.

The scope of the RTD global change research program encompasses more than climate change. It has broadened to examine constraints on the ability to adapt to environmental change including: (a) the economics of technological change; and (b) the constraints on the agricultural research system. One current focus is to compare various policies' impacts on the development of "green" technologies. The two types of policies compared are taxes and tradeable permits.

RTD's research program examines the implications of international environmental agreements for U.S. agriculture. The Framework Convention on Climate Change requires signatories to develop Action Plans to reduce emissions of greenhouse gasses to their 1990 levels by the year 2000. President Clinton's Climate Change Action Plan calls for programs to reduce pesticide and nitrogen fertilizer use. The programs are voluntary technology adoption programs. Ongoing work on voluntary programs for technology adoption for water quality is directly relevant. A second international agreement is the Montreal Protocol on CFCs. RTD has estimated the impacts on the agricultural sector of phasing out methyl bromide. The UNCED Convention on Biological Diversity is a third international environmental agreement that may affect agriculture. This year we began an initial examination of the opportunity costs of land use decisions. The economic forces driving deforestation will be explored, as well as the implications of the agreement for public and private plant breeding systems.

Global Change Seminar Series RTD sponsored a seminar series on the economics of global climate change. Speakers included Harry Kaiser of Cornell University, Robert Mendelson of Yale University, Jae Edmonds of Battelle Pacific Northwest Laboratories, Warwick McKibbin, Senior Fellow at the Brookings Institution, and William R. Cline, Senior Fellow at the Institute for International Economics. Presenters also met with staff at length to become acquainted with and provide valuable feedback on ongoing RTD research projects. Such meetings serve to raise awareness in the research community

of ERS activities.

Commissioned Policy Papers The Land and Global Resources Branch has commissioned a set of synthesis papers designed to identify key economic questions and policy debates surrounding global environmental issues with special reference to both the impacts on and role of agriculture. Taken as a set, the papers will review the current state of knowledge regarding these questions, identify economic tradeoffs, discuss policy options, and identify key topics of future research.

The papers will discuss:

- (1) the implications of global change for the international agricultural research system,
- (2) coping with scientific uncertainty in policy analysis,
- (3) the structure and trends in the management of the U.S.'s crop genetic resources collection and storage system,
- (4) the impact of climate change on developing country economic growth, food import demand, and food security, and
- (5) the inclusion of environmental accounts in a social accounting framework for policy analysis.

Much of this work is being done jointly with RTD staff. Also, commissioned is a review of the recent literature on the impacts of climate change on agriculture and an annotated bibliography on the subject.

These papers, along with others by ERS staff, will be presented in the Fall of 1994 at a symposium in Washington. Each paper will have two discussants who will have provided comments to authors at both early and later stages of research. We hope to involve officials in Federal and international agencies as commentators to insure that the papers are of true value to policy makers and to increase awareness of ERS research at other agencies / research institutions in Washington and beyond.

Staff Analysis RTD is actively participating in drafting portions of the United Nations Intergovernmental Panel on Climate Change's (IPCC) Assessment report. John Reilly is serving as convening lead author for Working Group II of the IPCC for the chapter on Agricultural Impacts and Adaptation. The IPCC is charged with providing an international assessment of the current scientific understanding of the climate change issue, including understanding of the social and economic impacts of climate change. An important task of the IPCC will be to provide a scientific foundation for what constitutes a "dangerous" concentration of trace gases. The Framework Convention on Climate Change calls for signatories to take action to avoid accumulation of dangerous levels. The IPCC will meet on this issue in Brazil in April 1994.

John Miranowski and Betsey Kuhn served on the Interagency Analysis Team that developed President Clinton's Climate Change Action Plan. George Frisvold contributed to the National Science Foundation's paper on research needs for the study of human dimensions of global change. The Division has also provided technical analysis to the USDA Global Change Program Office in support of their responses to requests from OMB, EPA, the Council of Economic Advisors, and the National Security Council.

NAPIAP Update

The National Agricultural Pesticide Impact Assessment Program (NAPIAP) is a USDA\State activity consisting of personnel from five USDA agencies (ARS, CSRS, ERS, FS, and ES) and 54 State Liaison Representatives (one from each State, DC, and three territories). NAPIAP's purpose is to promote informed regulatory decision-making regarding pesticide issues. NAPIAP's core function has traditionally centered on estimating the economic and yield effects of changes in the status of registered pesticides and reviewing proposed EPA pesticide regulatory actions. Typically, NAPIAP is called upon to quantify the production and economic impacts from the complete or partial cancellation of a pesticide or family of pesticides affecting a particular commodity. RTD has been involved with NAPIAP since its inception and Stan Daberkow is currently RTD's NAPIAP Coordinator.

Background

NAPIAP was inaugurated in 1976 to provide input into EPA's decision-making process and to establish a mechanism through which the Secretary of Agriculture could respond to proposed EPA actions. The establishment of NAPIAP was partly in response to the Federal Environmental Pesticide Control Act of 1972 which mandated benefit-risk assessments as an integral part of EPA's pesticide regulatory process. In addition, the 1975 amendments to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) required EPA to forward proposed regulatory actions to USDA for review and to publish USDA's comments and EPA's response in the Federal Register.

Current Structure and Benefit Assessment Process

The Washington NAPIAP staff is composed of a Director (Nancy Ragsdale), Deputy Director (Craig Osteen), and individuals assigned from each of the five core agencies. The staff manages formula funds which are made available to the States to support NAPIAP administration, a research grants program, benefit assessment activities, and other special projects. In addition to interacting with USDA agencies and State Liaisons, NAPIAP cooperates with various State Agricultural Experiment Stations, State Cooperative Extension Services, and State Departments of Agriculture.

Benefit assessments are conducted via a team of biological scientists (i.e., horticulturists, entomologists, weed scientists, and plant pathologists) and economists. The biological scientists typically provide data on: the commodities treated with a specific pesticide (i.e., number of acres planted, percentage of acres treated), active ingredients applied per acre, pests controlled, available alternative controls (including chemical and non-chemical options such as biological and cultural controls), and yield impacts associated with the adoption of each alternative. Biological scientists are also often involved in assessing such issues as environmental fate and transport and pest resistance. Economists estimate the short- and long-term economic impact from the cancellation of an individual pesticide or groups of pesticides.

Economic Analyses

The quantification of a pesticide's benefit is equivalent to estimating "the social efficiency loss, excluding health and safety (and environmental) effects, of removing the pesticide from the market and switching to the best alternative control" (Osteen and Szmedra). Typically, changes in consumer and producer surplus are used to estimate the benefits accruing to a particular pesticide.

Past benefit assessments assumed that output prices either were not or were affected by yield changes due to a pesticide's cancellation. In the former case, partial budgeting was employed to estimate the economic impacts of yield and pest control cost changes, whereas in the latter case demand elasticities were incorporated into the analysis. More recent assessments have utilized

econometric or mathematical programming models to examine simultaneous price, acreage, producer and consumer effects for several crops in multiple regions.

Most assessments have found that: in aggregate, producers gain from cancellation because the low elasticity of demand for agricultural commodities raises prices more than production falls; producers which do not use or require a pesticide targeted for cancellation benefit while producers which use the targeted pesticide lose (which may have regional distributional implications); and consumers are losers in direct terms, however, any gains from the use of less risky pesticides are typically not estimated. Some assessments, such as the recently completed cotton study, have found that commodity producers are also net losers under certain regulatory scenarios.

Current Activities and Future Issues

NAPIAP has completed over 40 assessments since its inception including recently completed reports on the major uses of methyl bromide and the major pesticides used in cotton production. Craig Osteen and Walter Ferguson were major contributors to these reports. NAPIAP currently has two ongoing pesticide assessments, 2,4-D and diazinon, while two others, propargite and chlorpyrifos, are in the final stages of editing and publication. Philip Szmedra and Herman Delvo are conducting the economic analysis of 2,4-D.

NAPIAP has also initiated a series of commodity assessments which estimate benefits of major pesticides on particular commodities. NAPIAP's intent is to periodically examine major crops (i.e., corn, soybeans, cotton, wheat, and sorghum) that account for a large portion of total pesticide use and also to examine a number of high-value, chemical intensive, minor crops. Many of the commodity assessments will be conducted through grants to scientists and economists at State Universities. Currently, there are nine such studies underway.

In view of the Clinton Administration's position on a revamped pesticide policy, NAPIAP will be concerned with a variety of issues (See December 1993 Agricultural Outlook article by Kuchler, et. al.) For example, the Administration has proposed a health-based pesticide policy whereby benefits would not be considered in setting pesticide residue tolerances in food. Both EPA and USDA are expected to place greater emphasis on IPM and non-chemical pest control alternatives while encouraging pesticide use reduction and/or reduced risk pesticides. The implications of the proposal for minor use crops is also of concern for NAPIAP, since many chemical pest control alternatives for these crops are declining as voluntary withdrawals increase due to the costs of reregistration.

EVENTS AND ACTIVITIES

CWAE Activities

This year, the Committee for Women in Agricultural Economics (CWAE) of the AAEA is headed by two women from RTD, Ann Vandeman (Chair) and Laurian Unnevehr (Vice Chair). Ann and Laurian are working with other CWAE members to organize CWAE's two main events for 1994: a preconference and the CWAE luncheon for the 1994 meetings in San Diego.

Laura D'Andrea Tyson, Chair of the President's Council of Economic Advisors and Professor of Economics at the University of California at Berkeley, has been invited to be the guest speaker at the CWAE luncheon. Tickets will be available through regular annual meeting registration.

The preconference, entitled **Gender and Work Place Relations: New Rules for a New Diversity**, will

provide a forum for discussion of cross-gender work relationships in agricultural and resource economics, focusing specifically on the skills needed to establish equitable, mutually respectful work environments for men and women. The objectives of the preconference are to facilitate a dialogue on how the experiences of and expectations for relationships at work differ between men and women, to approach a common understanding of the problems, and to begin to outline a set of mutually acceptable expectations for behavior in the workplace. Jan Salisbury, psychotherapist, researcher and consultant in organizational development specializing in gender and workplace issues, will lead the preconference. Salisbury conducted the CWAE workshop on sexual harassment at the 1990 AAEA meetings in Vancouver, and has conducted training for many public and private organizations including RTD.

FAO Conference

Carol S. Kramer, RTD Associate Director, attended the biennial Food and Agricultural Organization (FAO) Conference which took place in Rome, Italy, November 6-25, 1993, as a member of the official U.S. Delegation. The FAO is the preeminent organization programming in the areas of agricultural development, food production and marketing, and associated natural resource issues in the United Nations System. Every two years, representatives of most of the 160-plus member countries--including Ministers and Secretaries of Agriculture--meet in Rome to adopt FAO policies, review programs and budgets, and report on individual country developments.

The 1993 FAO Conference as the main order of business elected a new Director General, Jacques Diouf, a Senegalese, upon the announced retirement of the Director General of the past 18 years, Edouard Saouma.

Kramer participated in Commission I activities related to developments in food, agriculture, and the environment, including the following agenda items: the State of Food and Agriculture; FAO Activities Related to Sustainable Development and the Environment; Major Trends and Policies in Food and Agriculture: World Food Security and Nutritional Status; and World Agriculture: Toward 2010. In each case, the FAO Secretariat prepared a base document on the topic which circulated to the member countries and country delegations who responded, critiqued, or elaborated on points in official interventions.

Overall, 1992 was a poor agricultural year with global agricultural production rising only about 1 percent and developing country agricultural production rising only about 1.7 percent. Two-thirds of all developing countries had stagnant or declining levels of per capita food production. African per capita agricultural production fell by 6 percent. The former USSR experienced the fifth production decline in six years and Eastern Europe shared the poor 1993 performance. In addition FAO estimates world crop and livestock production declining by 3.5 percent in 1993.

Stepping back from production statistics, the Conference reflected two principal themes: that the FAO and member nations should continue to build on the policies and action plans coming out of both the UNCED-Rio Conference (UN Conference on Environment and Development) and the ICN (International Conference on Nutrition).

EPA Sustainable Practices Study

RTD Director John Miranowski participated in a Chicago meeting, December 14-15, of an Expert Advisory Group for the Environmental Protection Agency study, **Assessment of Sustainable Practices for Reducing Herbicide Loadings to Ground and Surface Waters.**

The expectation of the project in its initial phase is to identify farming systems and components of farming systems that will lead to decreased weed pressure in corn, sorghum and soybean production in the Midwest. These farming systems and practices will be evaluated for their environmental impact on water quality and economic impact in agricultural production.

The Center for Agricultural and Rural Development, Iowa State University, will conduct the analyses using the Comprehensive Environmental and Economic Policy Evaluation System (CEEPEs) and other models available to it.

RTD Electronic Data Products

RTD is committed to making data widely and readily available to the public. One mechanism for accomplishing this is the ERS-NASS Electronic Data Products program. RTD makes several of its key databases available to the public through this distribution system. These electronic data products offer users the opportunity to summarize and use data to meet their particular needs. Some data products contain information which is not available from hardcopy publications but is useful for research and other applications.

Among databases recently made available is the information collected from the 1990, 1991, and 1992 Cropping Practices Surveys. These Cropping Practices Surveys provide a wide range of nutrient and pest management information along with the detailed data on chemical usage. The unsummarized data in these data products indicate when and how primary nutrients and pesticides ingredients are applied and whether custom services were used. They also include information on lime, sulfur, micronutrients, manure, tillage systems, previous crops, seeding rates, plant densities, row spacing, irrigation, soil testing, operator tenure, participation in Government programs, yield, and other information related to the sample unit. The crops included in this database are corn, cotton, peanuts, potatoes, rice, sorghum, soybeans, and wheat (winter, spring, and durum).

The following list is a selection of the products that are currently available. For further information on the data included in these products, please contact the subject-area specialists identified with each database. To order a data product call 1-800-999-6779 or Fax 1-703-834-0110 or contact ERS-NASS 341 Victory Drive, Herndon, VA 22070. ERS and NASS data products on diskette and CD-ROM are now also available on the worldwide Internet. For information regarding access call James Horsfield, ERS Data Manager, 202, 219-0012.

Cropping Practices (Merritt Padgitt, 202, 219-0433), Stock #93018A (1990 data), Stock #93018B (1991 data), Stock #93018C (1992 data)

Agricultural Chemical Usage (Van Johnson, NASS, 202, 720-7492), Stock #93171 (1992 field crops), Stock #93172 (1992 vegetables), Stock #92171 (1991 field crops), Stock #92172 (1991 fruit crops), Stock #91009Z (1990 field crops)

Fertilizer Use and Price Statistics (Harold Taylor, 202, 219-0464), Stock #86012 (1964-1990 data)

Farm Machinery Statistics (Marlow Vesterby, 202, 219-0422), Stock #86016 (1944-1990 data)

Farm Real Estate Value, and Cash Rents (John Jones, 202, 219-0428), Stock #86010 (values 1950-1993), Stock #87012 (value of land and buildings 1850-1987), Stock #90025 (rents 1960-1993)

Farm Real Estate Taxes (J. Peter DeBraal, 202, 219-0425), Stock #92002 (taxes 1890-1989)

Foreign-owned Agricultural Land (J. Peter DeBraal, 202, 219-0425), Stock #87015 (1992)

Major Land Uses (Ken Krupa/Arthur Daugherty, 202, 219-0422), Stock #89003 (major uses 1945-1987)

Conservation Reserve Program Statistics (Tim Osborn, 202, 219-0403), Stock #89031 (all signups)

Production and Efficiency Statistics (Eldon Ball, 202, 219-0432), Stock #89026 (1947-1989)

Farm and Ranch Irrigation (Michael Moore, 202, 219-0410), Stock #87014 (1984 Census of Agriculture)

Agriculture Water Use (Michael Moore, 202, 219-0410), Stock #90001 [Bureau of Reclamation irrigation water supply and irrigated acreage (region) 1979-1986]

Irrigation Production Data System (Glenn Schaible, 202, 219-0410), Stock # 89023 (cost and returns of irrigated and dryland crop production by State and farm production region)

Dynamics of Land Use Change, 1960's (Marlow Vesterby, 202, 219-0422), Stock #88017

Land Use Change, 1970's (Marlow Vesterby, 202, 219-0422), Stock #88018A (North and East), Stock #88018B (Southeast), Stock #88018C (West), Stock #88018D (Pacific)

PEOPLE*

Welcome to ...

- Vince Breneman (RP), who is a GIS assistant from Virginia Polytechnic Institute and State University.
- Cathie Kascak (RP), who is a Visiting Scholar from the University of California at Davis.
- George Pavelis (OD), RTD retiree, who is working on USDA's forthcoming Resource Conservation Act Appraisal.

Appointment Changes ...

- Steve Crutchfield (W), is serving as Acting Chief of the Water Branch.
- Tim Osborn (RP), is serving as Acting Chief of the Resource Policy Branch.

Farewell to ...

- Mark Denbaly (L&GR), who is the new Leader of the Macroeconomics Section in the Agriculture and Rural Economy Division.

*RTD Branch and other units are abbreviated as follows: Office of the Director (OD), Environmental and Health Risk (E&HR), Land and Global Resources Branch (L&GR), Resource Policy Branch (RP), Water Branch (W), and Productivity and Emerging Technologies Branch (P&ET)

- Karl Gertel (L&GR), who retired after 44 years of service.
- Sarah Lynch (E&HR), who joined the staff of the Henry Wallace Institute for Alternative Agriculture.
- Steve Nako (E&HR), who accepted a position at the Environmental Protection Agency.
- Harry Vroomen (L&GR), who accepted a position at the National Fertilizer Institute.

Our Visiting Scholars...

- Nelson Bills (RP), who returned to the Department of Agricultural Economics at Cornell University.
- Darrell Bosch (RP), who returned to the Department of Agricultural Economics at Virginia Polytechnic Institute and State University.
- Christophe Bureau (P&ET), who returned to the National Institute of Agricultural Research, Grignon, France.
- Kristy Cook (P&ET), who accepted a position with the U.S. Agency for International Development.
- Jay Variyam (P&ET), who is working in the Commodity Economics Division.

Congratulations to...

- LeRoy Hansen (W), who was named a Berg Fellow for 1993, at the Soil and Water Conservation Society Annual Meeting.
- Laurian Unnevehr (E&HR), who was named Vice Chair of the Committee for Women in Agricultural Economics at the AAEA annual meeting.
- Ann Vandeman (P&ET), who was named Chair of the Committee for Women in Agricultural Economics at the AAEA annual meeting.

Resources and Technology Division

Commercial Phone: (202) 219-0455 Commercial Fax: (202) 219-0477

Office of the Director

Director -- John A. Miranowski
Secretary -- Denice A. Bess

Associate Director -- Carol S. Kramer
Deputy Director for Technology -- John M. Reilly
Deputy Director for Policy Research and Staff Analysis -- Margot Anderson
Assistant Director for Economics and Communications -- William Anderson
Assistant to the Director for Administration -- Leslee C. Lowstuter
Assistant to the Director for Policy -- Vacant
Secretary -- Cynthia Ray

Environmental and Health Risk Branch	Land and Global Resources Branch	Productivity and Emerging Technologies Branch	Resource Policy Branch	Water Branch
Chief -- Laurian Unnevehr Office Manager -- Rosa Pitts	Chief -- Betsey Kuhn Office Manager -- Roberta Atkinson	Chief -- Michael LeBlanc Office Manager -- Nicole Stafford	Acting Chief--Tim Osborn Acting Office Manager -- Tiajuana Sizemore	Acting Chief--Steve Crutchfield Office Manager -- Lucille Milligan
Section/Leader	Section/Leader	Section/Leader	Section/Leader	Section/Leader
Production Strategies -- Biing-Hwan Lin	Land Values and Ownership - Vacant	Agricultural Productivity -- Eldon Ball	Environmental Policy Evaluation -- Bruce Larson	Western Water Policy -- Michael Moore
Risk Management and Policy Analysis -- Vacant	Global Resources Impacts -- George Frisvold	Agricultural Research and Technology -- Margriet Caswell	Resources and International Policy -- Vacant	Water Demand and Conservation -- Vacant
Demand for Risk Reduction-- Fred Kuchler	Domestic Resources Impacts -- Vacant	Resources Information Systems -- Merritt Padgitt	Resource and Commodity Policy -- Tim Osborn	Environmental Valuation -- Steve Crutchfield
International Environmental and Health Risk -- Vacant	Land and Capital Use -- Abe Tegene	Sustainable Productions Systems -- Utpal Vasavada	Technology and Economic Policy -- Robbin Shoemaker	Water Quality Evaluation -- LeRoy Hansen
NAPIAP Coordinator Stan Daberkow	Global Climate Change Coordinator -- Vacant	Survey and Database Coordinator -- Ann Vandeman	Energy Policy Coordinator -- Jim Hrubovcak	Endangered Species Act Evaluation Coordinator -- Vacant
	Water Quality Coordinator -- Marc Ribaudo		Geographic Information Systems Coordinator -- Ralph Heimlich	

PUBLICATIONS

(July 1993 - December 1993)

ERS/USDA PUBLICATIONS

Monographs

- Aiken, J. David. State Restrictions on Landownership by Aliens and Businesses, December 31, 1992. Agricultural Handbook No. 702. September 1993. 84 pp.
- Anderson, Margot. Ethanol Production, Corn Gluten Feed, and EC Trade. Agriculture Information Bulletin No. 677. July 1993. 12 pp.
- Bull, Len. Residue and Tillage Systems for Field Crops. Staff Report No. AGES-9310. July 1993. 15 pp.
- Caswell, Margriet F. and Robbin A. Shoemaker. Equilibrium Effects of Agricultural Technology Adoption: The Case of Induced Output Price Changes. Technical Bulletin No. 1823. September 1993. 15 pp.
- Crutchfield, Stephen, LeRoy Hansen, and Marc Ribaud. Agricultural and Water Quality Conflicts: Economic Dimensions of the Problem. Agriculture Information Bulletin No. 676. July 1993. 18 pp.
- DeBraal, J. Peter. Taxes on U.S. Agricultural Real Estate, 1890-1991, and Methods of Estimation. Statistical Bulletin No. 866. September 1993. 33 pp.
- Gertel, Karl and Linda Atkinson. Structural Models and Automated Alternatives for Forecasting Farmland Prices. Technical Bulletin No. 1824. September 1993. 22 pp.
- Hrubovcak, James and Neil Hohmann. Alternative Fuels: Ethanol. Agriculture Information Bulletin No. 664-25. August 1993. 2 pp.
- Konyar, Kazim, Ian McCormick, and Tim Osborn. The U.S. Agricultural Resources Model (USARM): Model Documentation. Staff Report No. AGES-9317. August 1993. 23 pp.
- Letson, David, Stephen Crutchfield, and Arun Malik. Point-Nonpoint Source Trading for Managing Agricultural Pollutant Loadings: Prospects for Coastal Watersheds. Agricultural Economic Report No. 674. September 1993. 14 pp.
- Rogers, Denise and Ann Vandeman. Women Farm Landlords in the United States. Agriculture Information Bulletin No. 681. November 1993. 11 pp.
- Rogers, Denise and Gene Wunderlich. Acquiring Farmland in the United States. Agriculture Information Bulletin No. 682. September 1993. 10 pp.
- Shoemaker, Robbin A. A Model of Participation in U.S. Farm Programs. Technical Bulletin No. 1819. August 1993. 30 pp.

Articles

Letson, David. **Mathematical Programming: Tinker Toys with a Purpose.** Review of Sten Thore. Economic Logistics: The Optimization of Spatial and Sectorial Resource, Production, and Distribution Systems, in The Journal of Agricultural Economics Research. Vol. 44, No. 3. August 1993. pp. 46-48.

Moore, Michael R., Noel R. Gollehon, and Donald H. Negri. **Alternative Forms for Production Functions of Irrigated Crops.** The Journal of Agricultural Economics Research. Vol. 44, No. 3. August 1993. pp. 16-32.

Vasavada, Utpal, R. Saint-Louis and G. Debailleul. **The Conflict Between Trade and Environmental Policy in Agriculture.** M. Shane and H. von Witzke (Eds.) The Environment, Government Policies, and International Trade: A Proceedings. Staff Report No. AGES-9314. September 1993. pp. 88-98.

Situation and Outlook

Periodicals

Bull, Len and Harold Taylor (Coords). Agricultural Resources: Inputs. Situation and Outlook Report No. AR-32. October 1993. 69 pp. Contributors to the reports are: Len Bull, Art Daugherty, Herman Delvo, Mohinder Gill, Harold Taylor, Noel Uri, Marlow Vesterby

Articles

Bull, Len, Herman Delvo, Carmen Sandretto, and Bill Lindamood. **Analysis of Pesticide Use by Tillage System in 1990, 1991, and 1992 Corn and Soybeans.** Agricultural Resources: Inputs. Situation and Outlook Report No. AR-32. October 1993. pp. 41-54.

Cook, Kristy. **German Organic Producers Face EC Policy Changes.** Agricultural Outlook. AO-199. August 1993. p. 30.

Daberkow, Stan and Harold Taylor. **Nitrogen Fertilizer Application Timing Practices on 1992 U.S. Corn Acreage.** Agricultural Resources: Inputs. Situation and Outlook Report No. AR-32. October 1993. pp. 37-40.

Heimlich, Ralph E. and Dwight M. Gadsby. **Strategies for Wetlands Protection and Restoration.** Agricultural Outlook. AO-200. September 1993. pp. 32-37.

Kuchler, Fred, Sarah Lynch, and Katherine Ralston. **Toward a New Era of Pesticide Regulation.** Agricultural Outlook. AO-203. December 1993. pp. 32-35.

Lin, Biing-Hwan, Herman Delvo, and Len Bull. **Factors Influencing Agrichemical Use in Non-Irrigated Corn Production.** Agricultural Resources: Inputs. Situation and Outlook Report No. AR-32. October 1993. pp. 55-65.

Osborn, C. Tim, Margot Anderson, Ralph Heimlich, and Marc Ribaud. **U.S. Conservation Policy -- What's Ahead?** Agricultural Outlook. AO-202. November 1993. pp. 36-41.

Westenbarger, David A. **Measuring Air Pollution in Farm Areas.** Agricultural Outlook. AO-199. August 1993. pp. 24-26.

Wunderlich, Gene. **U.S. Farmland Ownership: A Century of Change.** Agricultural Outlook. AO-203. December 1993. pp. 3-5.

RTD Updates

Daugherty, Arthur. **1993 Cropland Use.** September 1993. 4 pp.

DeBraal, Peter. **Landownership Restrictlons.** October 1993. 4 pp.

Gill, Mohinder. **Cropping Patterns.** November 1993. 4 pp.

Hexem, Roger and John Jones. **Agricultural Land Values.** July 1993. 4 pp.

Jones, John. **Changes In Farmland Values.** August 1993. 4 pp.

Nodine, Linda and Russ Keim. **Area Studles.** August 1993. 4 pp. (Pennsylvania); September 1993. 4 pp. (Washington); November 1993 (Iowa/Illinois); December 1993 (Upper Snake Basin).

Padgitt, Merritt. **Cropping Practlces.** July 1993. 4 pp.

Vesterby, Marlow. **Farm Machinery.** October 1993. 4 pp.

SELECTED JOURNAL ARTICLES AND BOOK CHAPTERS**

Ball, Eldon, J. Bureau and H. Witzke. **The Stock of Capital in European Community Agriculture.** European Review of Agricultural Economics. Vol. 20. 1993. pp. 437-450.

Canning, Patrick N. and Howard D. Leathers. **Inflation, Taxes, and the Value of Agricultural Assets.** Land Economics. Vol. 69, No. 4. November 1993. pp. 389-403.

Carlson, Gerald A., David Zilberman and John A. Miranowski. (Eds.) Agricultural and Environmental Resource Economics. Oxford University Press. New York and Oxford. 1993. 528 pp.

Caswell, Margriet F. **Balancing the Allocatlon of Environmental and Energy Resources.** Richard Gilbert (Ed.). The Environment of Oil. Kluwer Academic Publishers. Boston. 1993. pp. 179-214.

Caswell, Margriet F., Robbin Shoemaker. **Market Equilibrium Impacts of Agricultural Technology Adopltion.** Technological Forecasting and Social Change. Vol. 43. 1993. pp. 321-335.

Cooper, Joseph. **Optimal Bld Selectlon for Dichotomous Choice Contingent Valuatlon Surveys.** Journal of Environmental Economics and Management. Vol. 24. 1993. pp.25-40.

Day, Kelly A. and George B. Frisvold. **Medlcal Research and Genetic Resources Management: The Case of Taxol.** Contemporary Policy Issues. Vol. 11, No. 3. July 1993. pp. 1-11.

Dinar, Ariel, Edna Loehman, Marcel Aillery, Michael Moore, Richard Howitt and Stephen Hatchett. **Regional Modeling and Economic Incentives to Control Drainage Pollution.** Clifford Russell and Jason Shogren (Eds.). Theory, Modeling and Experience in the Management of Nonpoint Source Pollution. Kluwer Academic Publishers. Boston. 1993. pp. 231-267.

Heimlich, Ralph. E. and C. Tim Osborn. **The Conservation Reserve Program: What Happens When Contracts Expire?** Choices. Third Quarter. 1993. pp. 9-14.

**A complete listing of outside publications available on request.

- Hellerstein, Daniel. **Intertemporal Data and Travel Cost Analysis.** Environmental and Resource Economics. July 1993. pp. 193-207.
- Hellerstein, Daniel, and Robert Mendelsohn. **A Theoretical Foundation for Applying Count Data Models to Travel Cost Analysis.** American Journal of Agricultural Economics. August 1993. pp. 604-611.
- Huang, Wen-Yuan and Noel Uri. **The Effect of Farming Practices on Reducing Excess Nitrogen Fertilizer Use.** Environmental International. Vol. 19. July 1993. pp. 179-191.
- Kuchler, Fred and Abebayehu Tegene. **Asset Fixity and the Distribution of Rents from Agricultural Policies.** Land Economics. Vol. 69, No. 4. November 1993. pp. 428-437.
- Letson, David, Stephen Crutchfield and Arun Malik. **Point/Nonpoint Source Trading for Controlling Pollutant Loadings to Coastal Waters: A Feasibility Study.** Clifford Russell and Jason Shogren (Eds.). Theory, Modelling and Experience in the Management of Nonpoint-Source Pollution. Kluwer Academic Publishers. Boston. 1993. pp. 123-154.
- Malik, Arun, David Letson, and Stephen Crutchfield. **Point/Nonpoint Source Trading of Pollution Abatement: Choosing the Right Trading Ratio.** American Journal of Agricultural Economics. Vol. 75, No. 4. November 1993. pp. 959-967.
- Miranowski, John A. and Gerald A. Carlson. **Agricultural Resource Economics: An Overview.** Gerald Carlson, et. al. (Eds.) Agricultural and Environmental Resource Economics. Oxford University Press. New York and Oxford. 1993. pp. 3-27.
- Miranowski, John A. and Mark Cochran. **Economics of Land in Agriculture.** Gerald Carlson, et. al. (Eds.) Agricultural and Environmental Resource Economics. Oxford University Press. New York and Oxford. 1993. pp. 392-440.
- Osborn, C. Tim. **The Conservation Reserve Program: Status, Future, and Policy Options.** Journal of Soil and Water Conservation. Vol. 48, No. 4. July 1993. pp. 271-78.
- Reilly, John and Kenneth R. Richards. **Climate Change Damage and the Trace Gas Index Issue.** Environmental and Resource Economics. Vol. 3. 1993. pp. 41-61.
- Shoemaker, Robbin A., David E. Ervin and Margriet F. Caswell, **Data Requirements for Modeling and Evaluation of National Policies Aimed at Controlling Agricultural Sources of Nonpoint Water Pollution.** Clifford Russell and Jason Shogren (Eds.) Theory, Modelling and Experience in the Management of Nonpoint-Source Pollution. Kluwer Academic Publishers. Boston 1993. pp. 179-200.
- Weinberg, Marca, Catherine L. Kling, and James E. Wilen. **Analysis of Policy Options for the Control of Agricultural Pollution in California's San Joaquin River Basin.** Clifford Russell and Jason Shogren (Ed.) Theory, Modeling, and Experience in the Management of Nonpoint Source Pollution. Kluwer Academic Press. Boston. 1993. pp. 201-230.
- Yee, Jet, James H. Hauver and V. Eldon Ball. **Fixed Factor Models of Agricultural Productivity Growth.** Applied Economics. Vol. 25. 1993. pp. 1187-1196.

PAPERS, SPEECHES, SEMINARS (List Available on Request)

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